



**OSHT 2305 001IN  
ERGONOMICS/HUMAN FACTORS IN SAFETY  
TUESDAYS FALL 2022**

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**Student/Office hours and location:**

**Monday – 10:00 to 12:00 PM**  
**Tuesday’s & Wednesday - 11:00 AM to 1:30 PM**

**Instructor will be available during scheduled student hours. All student (office) hours will be conducted via phone or Team. Other times will be available by appointment. Please email the instructor to set up other times.**

**Required Textbook:**

**Introduction to Human Factors & Ergonomics  
(Fourth Edition)**  
Author: R. S Bridger  
Publisher: CRC Press (Taylor & Francis Group).

**Course Description:** This course provides an in-depth study of the relationship of human behavior and ergonomics as applied to workplace safety.

Upon successful completion of OSHT 2405, the student should be able to:

1. Recognize the human psychological and physiological factors as they effect the safety and health in the workplace.
2. Discuss regulatory issues of ergonomics including the history of the OSHA proposed ergonomic standard.
3. Evaluate program organization concepts related to an industrial ergonomics injury

prevention and control -program.

4. Design and implement an ergonomics control program.
5. Examine layouts, adjustable designs, and clearance dimensions, controls and tools considered in an optimal-occupational workplace design.
6. Discuss responsibility of the manager in developing an ergonomic plan that will meet regulatory demands and the challenges of competing financial limitations for ergonomic programs .

Student Learner Outcome	Maps to Core Objective	Assessed Via this Assignment
SLO 1	Critical Thinking	Homework1
SLO 2	Teamwork	Homework 2
SLO 3	Critical Thinking	Group work
SLO 4	Critical Thinking	Quizzes
SLO 5	Communication Skills	Project Presentation

**Attendance Policy:** Students at the College of the Mainland are expected to punctually attend every session of all classes for which they are registered. You will be required to sign in at each class. If you are absent, you will still be held responsible for the materials that were covered in the class. If you must be absent, please contact the instructor.

**Classroom Conduct Policy:** College of the Mainland requires that students enrolled at COM be familiar with the Standards of Student Conduct, which can be found in the on-line Student Handbook. [http://www.com.edu/student-services/docs/student\\_handbook\\_2013-2014\\_v2.pdf](http://www.com.edu/student-services/docs/student_handbook_2013-2014_v2.pdf) . Students should act in a professional manner at all times. Disruptive students will be held accountable according to college policy. Any violations of the Code of Conduct will result in a referral to the Office for student Conduct and may result in dismissal from this class.

**Academic Dishonesty:** Any incident of academic policy will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a **grade of zero** on that exam and the student will be referred to the Office of Student Conduct for the appropriate discipline action.

**Plagiarism:** Plagiarism is using someone else’s words or ideas and claiming them as your own. Plagiarism is a very serious offense. Plagiarism includes paraphrasing someone else’s words without giving proper citation, copying directly from a website and pasting it into your paper, using someone else’s words without quotation marks. Any assignment containing any plagiarized material will receive a **grade of zero** and the student will be referred to the Office of Student Conduct for the appropriate discipline action. The following link provides resources to avoid plagiarism: <http://en.writecheck.com/ways-to-avoid-plagiarism/>

**Success Tips for Students (at a minimum, include link(s) to resource(s) focused on any computer skills needed to be successful in course):**

Students who possess the following traits tend to be successful: self-motivated, work independently with minimum supervision, good time management skills, good reading and writing skills, good computer skills.

To be successful in this course you must:

- Pay attention to your calendar
- Complete your reading assignments
- Submit your homework on time
- Complete your exams prior to the deadline.
- Communicate with your professor.

**Make-Up Policy:** Tests and exams must be taken **on the time and date noted unless prior arrangements are made with the instructor.** Any approved make-up tests must be taken at the Testing Center located at Student Center Building 1. It will be the responsibility of students to arrange with the Testing Center for the test/exams. Testing Center can be reached at [testingcenter@com.edu](mailto:testingcenter@com.edu) or 409-933-8676.

**Concerns/Questions Statement:** If you have any questions or concerns about any aspect of this course, please contact the instructor using the contact information previously provided. If, after discussing your concern with the instructor, you continue to have questions or concerns please contact Derrick Lewis, Department Chair at 409-933-8607 or email [dlewis22@com.edu](mailto:dlewis22@com.edu).

### **Course requirements:**

**Examinations:** There will be one final examination over the material covered. The final exam will be open book. Exam must be taken at the designated time unless prior arrangements have been made with the professor. Students who have an unexcused absence will not be allowed to make up an exam and receive the grade of “0” (zero).

**Project Report:** Each student is required to write one subject report and present the report to the class. Topics and specific instructions for the report will be provided by the instructor. Students are expected to present their papers on the date the assignment is due. **If they are turned in late, the student will receive a 50% reduction in points.** Papers and reports will not be accepted more than one (1) week late and result in a grade of “0” (zero).

**Homework:** There will be two (2) homework assignments. Each homework assignment has a maximum of 50-points each. The homework will address core objective critical thinking. Failure to turn in a required homework at the prescribed time will result in zero “0” points awarded for the assignment. If you cannot make the class, you must email the homework to your professor, at the email address provided here, prior to the beginning of the class time on the date it is due

**Quizzes:** There will be five quizzes, which will be over the materials covered in the previous weeks. The quizzes will be open-book.

**Make-Up Policy:** Tests and quizzes must be taken **on the time and date noted unless prior arrangements are made with the instructor.** All approved make-up tests must be taken at the Testing Center located at Student Center Building 1. It will be the responsibility of students to arrange with the Testing Center for the test. Testing Center can be reached at [testingcenter@com.edu](mailto:testingcenter@com.edu) or 409-933-8676. **Final examination must be taken at the designated time.**

### **Determination of Course Grade/Detailed Grading Formula**

#### **Grading Scale:**

90 – 100% = A  
80 – 89% = B  
70 – 79% = C  
60 – 69% = D  
Below 60% = F

#### **Grading Distribution:**

1. Final Examination	100 points
2. Industrial Project Report	100 points
3. Homework's (2 Homework's @ 50-points each)	100 points
4. Quizzes (10 quizzes @ 20 points each)	200 points
5. Class Participation (14 @ 5 points each)	70 points

**TOTAL**

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**570 points**

## 16 Week Course Calendar

#	Date 2022	Topic (Chapter Number)	Reading and Assignment Due
1	8/23	Introduction, Run, Hide, and Fight. What is Ergonomics?	<b>Read Chapter 1 &amp; 2</b>
2	8/30	Body as Mechanical system. <b>Quiz 1</b>	<b>Read Chapter 3. Quiz 1 Due 9/11/2022 @ 11:59 pm</b>
3	9/6	Anthropometry, workstation. <b>Quiz 2 assigned.</b>	<b>Read Chapter 4. Quiz 2 Due 9/18/2022 @ 11:59 pm</b>
4	9/13	Standing and sitting at work. <b>Quiz 3 assigned. Homework I assigned</b>	<b>Read Chapter 5. Quiz 3 Due 9/25/2022 @ 11:59 pm</b>
5	9/20	Repetitive Task Muscular Work, <b>Quiz 4 assigned</b>	<b>Read Chapter 6. Quiz 4 Due 10/02/2022 @ 11:59 pm</b>
6	9/27	Manual Handling and load carriage. <b>Quiz 5 assigned</b>	<b>Read Chapters 7 Quiz 5 Due 10/9/22 at 11:59 pm</b>
7	10/4	Work capacity, stress, fatigue. <b>Quiz 6 assigned</b>	<b>Read chapter 8. Homework 1 &amp; Quiz 6 Due 10/16/22 at 11:59 pm</b>
8	10/11	Job demands, health and well-being. <b>Quiz 7 assigned.</b>	<b>Read Chapter 9. Quiz 7 Due 10/23/22 at 11:59 pm.</b>
9	10/18	Working environment, hot and cold. <b>Quiz 8 &amp; Homework 2 assigned</b>	<b>Read Chapter 10. Quiz 8 Due 10/30/22 at 11:59 pm</b>
10	10/25	Visual environment. <b>Quiz 9 assigned.</b>	<b>Read chapter 11. Quiz 9 Due 11/06/22 at 11:59 pm</b>
11	11/1	Hearing, sound, noise. <b>Quiz 10 assigned</b>	<b>Read Chapter 12. Quiz 10 Due 11/13/22 at 11:59 pm</b>
12	11/8	Mind at work	<b>Read Chapters 13 &amp; 14. Homework 2 Due 11/20/22 at 11:59 pm</b>
13	11/15	Displays and control, interactive devices.	<b>Read Chapter 15.</b>
14	11/22	Accident investigation and safety management. <b>Work on Project Report.</b>	<b>Project Report</b>
15	11/29	<b>Submit Project Report. Final Exam Review</b>	<b>Project Report Due at 6:00 pm Course Evaluation</b>
16	12/6	<b>Final Exam Due 12/06/22</b>	<b>Course Evaluation</b>

## Institutional Policies and Guidelines

**Grade Appeal Process:** Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook. <[https://build.com.edu/uploads/sitecontent/files/student-services/Student\\_Handbook\\_2019-2020v5.pdf](https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf). *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.* [https://build.com.edu/uploads/sitecontent/files/student-services/Student\\_Handbook\\_2019-2020v5.pdf](https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf)

**Academic Success & Support Services:** College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

**ADA Statement:** Any student with a documented disability needing academic accommodations is requested to contact Holly Bankston at 409-933-8520 or [hbankston@com.edu](mailto:hbankston@com.edu). The Office of Services for Students with Disabilities is located in the Student Success Center.

**Counseling Statement:** Any student needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or [hbankston@com.edu](mailto:hbankston@com.edu). Counseling services are available on campus in the student center for free and students can also email [counseling@com.edu](mailto:counseling@com.edu) to set up their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

**Textbook Purchasing Statement:** A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

**Withdrawal Policy:** Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1<sup>st</sup> 8-week session is October 5. The last date to withdraw from the 16-week session is November 18. The last date to withdraw for the 2<sup>nd</sup> 8-week session is December 1.

**F<sub>N</sub> Grading:** The F<sub>N</sub> grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F<sub>N</sub> grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the F<sub>N</sub> grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F<sub>N</sub> grade.

**Early Alert Program:** The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you

will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

**Resources to Help with Stress:**

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here <https://www.com.edu/community-resource-center/>. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at [deanofstudents@com.edu](mailto:deanofstudents@com.edu) or [communityresources@com.edu](mailto:communityresources@com.edu).